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EXAMINER	
ODLAND, DAVID E	
ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/676,743	ADLER, JOHN C.	
	Examiner	Art Unit	
	David Odland	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3,5,6 and 8, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu (USPN 5,412,652), in view of Takatori (USPN 5,550,805), hereafter referred to as Takatori.

Referring to claim 1, Lu discloses a method for a communications network including a protect channel transmitting protect channel data (protection channels that transmit extra traffic (see figure 5 and column 8 lines 24-40)) and working channel transmitting working channel data (a working channel that transmits normal traffic (see figure 5 and column 8 lines 24-40)), the method comprising transmitting the working channel data via the protect channel upon a disruption in the working channel (when the working traffic fails the protection traffic is preempted (see column 8 lines 24-40)) and restoring the transmitting of protect channel data (when the failure has been rectified, full recovery is realized through the use of the ring table (see column 13 lines 61 through column 14 line 3)), wherein restoring includes applying a restoration protocol to the communications network to restore the transmittal of the protect channel data (a protocol is used to recovery from the failure and the network is restored to its previous state, thus the protect channel is restored (see column 13 lines 61 through column 14 line 3)). Lu does not disclose that the restoration protocol is a 'mesh' restoration protocol. However, Takatori discloses a failure restoration system wherein a failure is restored using a mesh restoration

protocol (see abstract and figures 1-4)). It would have been obvious to one skilled in the art at the time of the invention to implement this type of network restoration protocol in Lu because mesh networks are very reliable since each node is connected to all other nodes and thus many protection paths can exist.

Referring to claim 2, Lu discloses the system discussed above. Lu does not disclose that the mesh restoration protocol is a distributed mesh restoration protocol. However, Takatori disclose a distributed mesh restoration protocol (see figures 1-4). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into Lu because distributed restoration is more reliable tan centralized restoration because if a node of a distributed restoration fails there are still other nodes that can perform the restoration.

Referring to claims 3,5,6 and 8, Lu discloses the system discussed above. Furthermore, Lu discloses that the protect channel data is at least one of video, voice and data (the protect channels transmit extra traffic (see column 8 lines 24-40));

wherein the communications network is one of a Synchronous Optical Network (SONET) and a Synchronous Digital Hierarchy (SDH) (the Lu system is implemented in a SONET system (see abstract));

wherein the communication network includes a plurality of interconnected nodes, the interconnected nodes having at least one of a working channel and a protect channel (the network nodes include working and protecting channels (see figures 1 and 2));

wherein the mesh restoration protocol includes communicating status and control messages across a physical network layer of the communication network (the ring tables are

transmitted among the network nodes for restoring the network, this is inherently done using the physical layer (columns 13 and 14)).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Takatori and further in view of Nemoto (USPN 5,506,833), hereafter referred to as Nemoto.

Referring to claim 4, Lu discloses the system discussed above. Lu does not disclose that the restoring further includes finding one or more alternate channels to transmit the protect channel data, the one or more alternate channels including connected working and protect channels. However, Nemoto discloses a system wherein protection channel data is restored by transmitting the disrupted protect channel data on a secondary spare channel (see item 40 of figure 11)). It would have been obvious to one skilled in the art at the time of the invention to implement this feature into Lu because doing so would make Lu more reliable. Namely, if the protect channels of Lu because disrupted there would be a secondary spare channel, as taught in Nemoto, to further process the protect channel traffic.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Takatori and further in view of Shah et al. (USPN 5,646,936), hereafter referred to as Shah.

Referring to claim 7, Lu discloses the system discussed above. Lu does not disclose that the plurality of interconnected nodes transmits a disruption signal upon receiving a signal indicating the disruption, the disruption signal flooding the communication network to determine alternate routes for the protect channel data. However, Shah discloses of a path restoration technique wherein when a link disruption takes place alternate paths are set up through the use of

flooding the network with messages about the disruption (see figure 1 and column 1 lines 51-63). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in the system of Lu because doing so would make Lu more robust since it would exhaust efforts in finding alternate routes and not rely on a single alternate route.

5. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu in view of Takatori and further in view of Shioda et al. (USPN 5,537,393), hereafter referred to as Shioda.

Referring to claims 9-11, Lu discloses the system discussed above. Lu does not disclose that the status and control messages are communicated using SONET frame overhead bytes, out-of-band communications channels or a distributed routing protocol. However, Shioda discloses a system wherein a restoration protocol is implemented to restore protection channel data (see column 7)) and wherein status and control information is communicated in frame overhead bytes (see column 7), which can be considered out-of-band channels and which are inherently designated (distributed) according to a protocol (see columns 7 and 8)). It would have been obvious to one skilled in the art at the time of the invention to implement these features into Lu because communicating this information out-of-band, in overhead byte and according to a distribution protocol would make Lu more bandwidth efficient and resourceful.

6. Claims 12-18,20-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioda in view of Takatori.

Referring to claims 12, 21 and 29, Shioda discloses an apparatus disposed in a communication network having a protect channel and a working channel (a node in a network

that has working and protection lines (see figure 1)), the apparatus comprising a node controller (the nodes have CPUs (see column 4 lines 25-33)), a route processor coupled to the node controller, the route processor implementing a restoration protocol (the nodes performs the restoration of working and protection lines (see columns 7 and 8)), a circuit coupled to the node controller and the route processor, the circuit including a logic gate for receiving signals identifying disruptions in transmissions in the protect channel and the working channel (a AIS generator and comparator identify disruptions in the working and protection paths (see columns 7 and 8)), a switch responsive to the signals identifying disruptions in transmissions in the protect channel and the working channel (the data from the working path is switched to the protection path (see columns 7 and 8)), the switch communicating the route processor to implement restoration of protect channel data (the data is switched from the working and or protection lines to other working and/or protection lines (see columns 7 and 8)). Shioda does not disclose that the restoration protocol is a 'mesh' restoration protocol. However, Takatori discloses a failure restoration system wherein a failure is restored using a mesh restoration protocol (see abstract and figures 1-4)). It would have been obvious to one skilled in the art at the time of the invention to implement this type of network restoration protocol in Lu because mesh networks are very reliable since each node is connected to all other nodes and thus many protection paths can exist.

Note regarding claim 29, Shioda does not disclose that the system is implemented in a program. However, it would have been obvious to one skilled in the art at the time of the invention to implement the Shioda system in this manner because the developmental costs of a software

implementation are less than that of a hardware based implementation. Furthermore, software is easier to upgrade than hardware.

Referring to claim 13, Shioda discloses the system discussed above. Furthermore, Shioda discloses that the circuit is coupled to at least one line card, the line card transmitting the signals identifying disruptions in transmissions in the protect channel and the working channel (the AIS signals are transmitted over the working and protection lines to indicate disruptions, note the circuits are inherently implemented on cards (see columns 7 and 8 and figure 7)).

Referring to claim 14, Shioda discloses the system discussed above. Furthermore, Shioda discloses that the circuit includes an input/output circuit for receiving instructions identifying criteria for applying mesh restoration to protect channel data (when the ID's don not match the path is considered disrupted, thus this is the criteria used (see columns 7 and 8 and figure 7)).

Referring to claim 15, Shioda discloses the system discussed above. Shioda does not disclose that the criteria are a function of the type of data being transmitted as the protect channel data. However, It would have been obvious to one skilled in the art at the time of the invention to base the criteria on data type because different data types have different transmission requirements (e.g. voice data requires low delay), thus basing the criteria on the data type in Shioda will make Shioda more flexible and reliable.

Referring to claims 16-18,20,22-25 and 28, Shioda discloses the system discussed above. Furthermore, Shioda discloses that the protect channel data includes at least one of voice, video and data (data is transmitted in the SPE of the frames of the system (see figure 1));

wherein the communications network is one of a Synchronous Optical Network (SONET) and a Synchronous Digital Hierarchy (SDH) (the system uses the SONET protocol (see abstract and figure 1));

wherein the communication network includes a plurality of interconnected nodes, the interconnected nodes having at least one of a working channel and a protect channel (the network has interconnected nodes and working and protection channels (see figure 1)).

wherein the route processor implements a mesh restoration protocol that includes communicating status and control messages across SONET overhead bytes of the communication network (the Shioda system uses overhead bytes to implement the protection system (see columns 7 and 8));

wherein the means for restoring further includes means for finding one or more alternate channels to transmit the protect channel data, the one or more alternate channels including connected working and protect channels (the PCA data can be rerouted over another protection path or over a working path of another subscriber (see columns 7 and 8 and figure 7));

wherein the apparatus includes a plurality of circuits disposed in a plurality of linked nodes, each circuit coupled to a node controller associated with one of the plurality of linked nodes (the nodes comprise many circuits and are in a network of linked nodes and the nodes have CPUs (see figures 2 and 7)).

Referring to claim 27, Shioda discloses the system discussed above. Shioda does not disclose that the apparatus is in a management bay with a plurality of other cards. However, It would have been obvious to one skilled in the art at the time of the invention to implement the nodes of Shioda in this fashion because doing so would give network technicians a well-confined

and organized way of performing operation, testing, repairing and maintenance operations, thus making the Shioda system more user friendly. This is particularly important in Shioda because since disruptions are occurring it is important to repair the network elements that are malfunctioning and causing these disruptions as quickly as possible, thus implementing nodes in this well-confined and organized manner will help improve the timing and quality of such repairs.

7. Claims 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioda in view of Takatori and further in view of Shah.

Referring to claims 19 and 26, Shioda discloses the system discussed above. Shioda does not disclose that the plurality of interconnected nodes transmits a disruption signal upon receiving a signal indicating the disruption, the disruption signal flooding the communication network to determine alternate routes for the protect channel data. However, Shah discloses of a path restoration technique wherein when a link disruption takes place alternate paths are set up through the use of flooding the network with messages about the disruption (see figure 1 and column 1 lines 51-63). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in the system of Shioda because doing so would make Shioda more robust since it would exhaust efforts in finding alternate routes and not rely on a single alternate route.

Response to Arguments

8. Applicant's arguments filed 04/16/2004 have been fully considered but they are not persuasive.

On pages 9 and 10, the Applicant argues that Lu in view of Takatori does not teach the claimed invention because neither reference shows any restoring transmittal of protect channel data. The Examiner respectfully disagrees. Lu teaches that when a working path fails the data is then transmitted on a protection path, such that 'Extra Data' that was being transmitted on the protection path is preempted (see column 8 lines 24-40). Furthermore, Lu discloses that a protocol is used to recovery from this failure and the entire network is restored to its previous state, which included transmitting "Extra Data" over the protection path (see column 13 lines 61-column 14 line 3). Note, the claim does not recite that the protect channel data itself is protected, which is what the Applicant seems to allude to. The claim merely recited that what is restored is the *transmittal* of protect channel data. Since Lu discloses restoring the network back to its previous state and the previous state included transmitting "Extra Data" on the protection path, Lu does show restoring the transmittal of protect channel data, as recited in the claim. The aspect of the claimed invention not taught by Lu is that Lu's restoration technique is not a 'mesh' restoration technique (i.e. related to a mesh type network).

On pages 10 and 13, the Applicant argues that there is no motivation for combining Lu with Takatori or Shioda in view of Takatori. The Examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves **or in the knowledge generally available to one of ordinary skill in the art.** See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596

(Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is known in the art that mesh networks are used to increase reliability of a system (see Appendix I for the attached definition of "mesh networks' from *Newton's Telecom Dictionary*, 12th Edition, Harry Newton). Therefore, it would have been obvious to a skilled artisan at the time of the invention to implement the network restoration of Lu and Shioda as a mesh type of network restoration, as taught in Takatori, because such networks are more reliable and both Lu and Shioda involve making networks more reliable through the use of working and protection paths.

On page 12 regarding combination of Shioda in view of Takatori, the Applicant contends that Shioda does not teach restoring protection lines and rather Shioda teaches fixing erroneous connections made by the protection line and this is different from the claimed invention. The Examiner respectfully disagrees. Although Shioda does point out fixed erroneous connections, this fix is irrelevant to how Shioda reads on the claimed invention. Namely, Shioda discloses that the protection line is connected to the working path of another subscriber when failure occirs (see column 7 lines 42-55), thus indeed the data on that protection line can still be considered as restored since the protection line data is transmitted on the working path. Note this connection of the protection path to the working path is called 'erroneous' by Shioda because in the prior art the AIS signal is not transmitted properly. Shioda cures this deficiency of the prior art by implementing the redundant circuitry shown in figure 7 (see figure 7 and column 8 lines 1-5). Thus, although this connection of the protect channel may have caused problems in the past, Shioda overcomes this problem but nonetheless still discloses restoring the protect channel data, as required by the claimed invention.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland whose telephone number is 703-305-3231. The examiner can normally be reached on Monday - Friday from 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

deo

June 30, 2004

HASSAN MIZOU
EXAMINER
TECHNOLOGY CENTER 2600

Appendix I

illion Hz or one million cycles per second. See BANDWIDTH and HERTZ

rvice of 30 64-Kbps channels (i.e. E-1).

store a phone number for calling in the future. For example, while speak- number she gives you into memory, and then call that number by pust-

lescriptive text or comments. The information in a memo field can be o

hone system which stores information or instructions for use. Memor lost when the power is switched off. There is memory which is retaine

that provide network system database updates, network system databas system database backup and restoration. Definition from Bellcore in re- ork.

ease a computer's amount of RAM.

dware performance by storing frequently used sequences of instructions memory where they can be more quickly accessed by the CPU.

ised voice messaging services from BellSouth.

nemory chips crammed into a small plastic cartridge about the size of ised in several palmtop computers. As this dictionary was being written y card. In contrast to flash memory, a memory card requires small batter-

mory interface is the default interface after power up, PCMCIA Hard Reset ockets. This interface supports memory operations as defined in PCMCIA rds and I/O Cards.

stored where in a computer's RAM memory.

esources in Novell's NetWare 4.0 that guards the NetWare server memory you to run NLMs in a separate memory domain called the OS PROTECT- you can load it into the OS domain, where it can run most efficiently.

e, generally provided by a battery, which supplies power to the memory uld check your memory reserve power before it's too late. You should test

definition. A memory technology driver is a memory device specific soft- ills of accessing different memory technologies.

reen or spoken by a voice processing system. The user can choose with either typing it on the computer keyboard, hitting a touchtone on his phon ays of organizing computer or voice processing software — menu-driven ier to use but they can only present as many options as can be reasonably on-menu driven screens allow more alternatives but are much more com ing a bland "A" or "C" prompt on the screen — as in MS-DOS and recen ," "Press B if you want Spread Sheet," etc. It's very easy to write menus a and PROMPTS.

ystem visible as a single row across the top of the display.

ch the movable contact of the device makes contact with a pool of mercury ogy for switching dry circuits. See also DRY CONTACT.

lity for Intel platforms. Gives Sun users access to MS-DOS and Microso

consumer electronic and media conglomerates all vying for access to M

of PBXs. In recent years, Northern's PBXs have evolved from the SL-1 fa ily, which Northern says will support from 30 to 60,000 lines.

com enables Meridian 1 Communication Systems (i.e. PBXs and ACDs) t application software that resides on those computers. This means that M Automatic Number Identification (ANI) and Dialed Number Identificatio outines, such as record look-up. According to Northern, its customers ha employee productivity, reduce call lengths and result in higher revenue software:

des agents with the capability of knowing who is calling (ANI) and wh oves agent productivity by saving the record look-up time.

ductive means of passing dial requests from a computer to Meridian 1 proves productivity.

computer makes calls and monitors call progress, transferring calls

• Coordinated Transfer of Voice and Data. A telephone call and a screen of information are simultaneously transferred. A customer does not have to repeat information.
• Telephone Operations from a Terminal. Capabilities include making a call, disconnecting, transferring, or conferencing by a keyboard command.

Meridian Link Interface A Northern Telecom definition. The Meridian Link interface is the link between the host computer and the Meridian, through the Meridian Link Module. It uses LAB protocol between the MLM and Meridian 1, and either X.25 or LAB protocol between the MLM and host computer. See MERIDIAN LINK.

Meridian Link Module MLM. A Northern Telecom definition. The MLM supports the Meridian Link interface to host processors. It is packaged within the Application Equipment Module. See MERIDIAN LINK.

Meridian Mail Northern Telecom's voice messaging system. Meridian Mail provides voice processing capability to Meridian Link applications.

Meridian Teladapter TCM Connects the digital telephone and Macintosh to the switch. The TelAdapter connects to a QPC578 or NT8D02AB digital line card.

Meridional Ray In fiber optics, a ray that passes through the optical axis of an optical fiber. This contrasts with a skew ray, which does not.

MERIT The successor to NSFNET, MERIT originally was a statewide IP network operated by the University of Michigan. It also was a substantial regional subnetwork (subnet) of the NSFNET and the Internet. MERIT provides access into the Internet through MAEs (Merit Access Exchanges) located in San Jose (MAE West) and Vienna, Virginia (MAE East); those points of access actually are provided in partnership with MFS Datanet.

Merlin AT&T's first electronic key system, distinguished by futuristic styling, horrible membrane line keys, nonstandard 8-conductor wiring scheme, and expensive accessories. Later versions were much better. See below.

Merlin Classic Term applied to original series of AT&T's MERLIN 206, 410 and 820 electronic key telephone systems.

Merlin II Third generation of AT&T's Merlin electronic key telephone system. Uses digital technology, and either older analog Merlin phones, dedicated single-line phones or newer digital multi-line phones. Programming is menu-driven. Features include hospitality functions and automatic route selection. Accepts Legend circuit boards and phones.

Merlin Legend Fourth Generation of AT&T's Merlin phone system, actually considered an enhancement of previous Merlin II. Maximum size is 90 lines and 144 phones (but not both maximums in same system). Operates in either key system, PBX or "behind switch" mode. T-1 compatible. Works with either older Merlin phones or new line of MLX digital phones, with more conventional styling than older Merlin phones.

Merlin Plus Second Generation of AT&T's Merlin electronic key telephone system. It introduced such features as call forwarding, automated attendant, remote system access, auto-busy-redial, and direct station access.

MERS Most Economical Route Selection. A term used by GTE and some other PBX manufacturers to mean Least Cost Routing. See LEAST COST ROUTING.

MESA Architecture Centigram's trademarked brand name for its architecture that stands for Modularly Expandable System Architecture:
1. The capability to expand and/or enhance a VoiceMemo II system hardware and software in a modular fashion.
2. The capability to expand a single module VoiceMemo II into a multi-module system with a single database and centralized control.

Mesa-Flex Centigram's service design utility that allows a VoiceMemo II system to be fully customized through individually designed Feature Class of Service, independent Limits Classes of Service, Group Classes of Service and Network Classes of Service.

Mesalink Centigram's registered trademark for its inter-processor high speed bus that carries control information to the distributed processors.

Mesh Connectivity A data network that offers multiple paths between points. See MESH NETWORK.

Mesh Network A data network that provides multiple paths between points. Internetworking devices choose the most efficient paths in moving data from one point to another. A mesh network might be constructed for greater reliability (one path goes down another can take over) or it might be constructed because all the points on the network need to be connected (that's the more typical case).

Meso The Greek prefix meaning the middle.

Mesochronous The relationship between two signals such that their corresponding significant instants occur at the same average rate.

Message 1. A sequence of characters used to convey information or data. In data communications, messages are usually in a agreed format with a heading which establishes the address to which the message will be sent and the text which is the actual message and maybe some information to signify the end of the message. A Northern Telecom Norstar definition: A message, which appears on the telephone display that informs the recipient to call the person who sent the message. Messages can only be sent within the Norstar system.
2. The Layer 3 information in the OSI model that is passed between the CPE and SPCS for signaling.
3. A SCSA definition. The transport container for SCSA requests, replies and events. Assumes a set of conventions for directing the delivery of the message to the proper entity, either a client or service provider. See also SCSA Message Protocol.

Message Alert A cellular phone term, also called "call-in-absence" indicator. A light or other indicator announcing that a phone call came in, an especially important feature if the cellular subscriber has VOICE MAIL.

Message Alignment Indicator In a signal message, data transmitted between the user part and the message transfer part to identify the boundaries of the signal message.

Message Backbone A single format message transport system designed for the electronic mail and messaging needs of an entire corporation or enterprise.